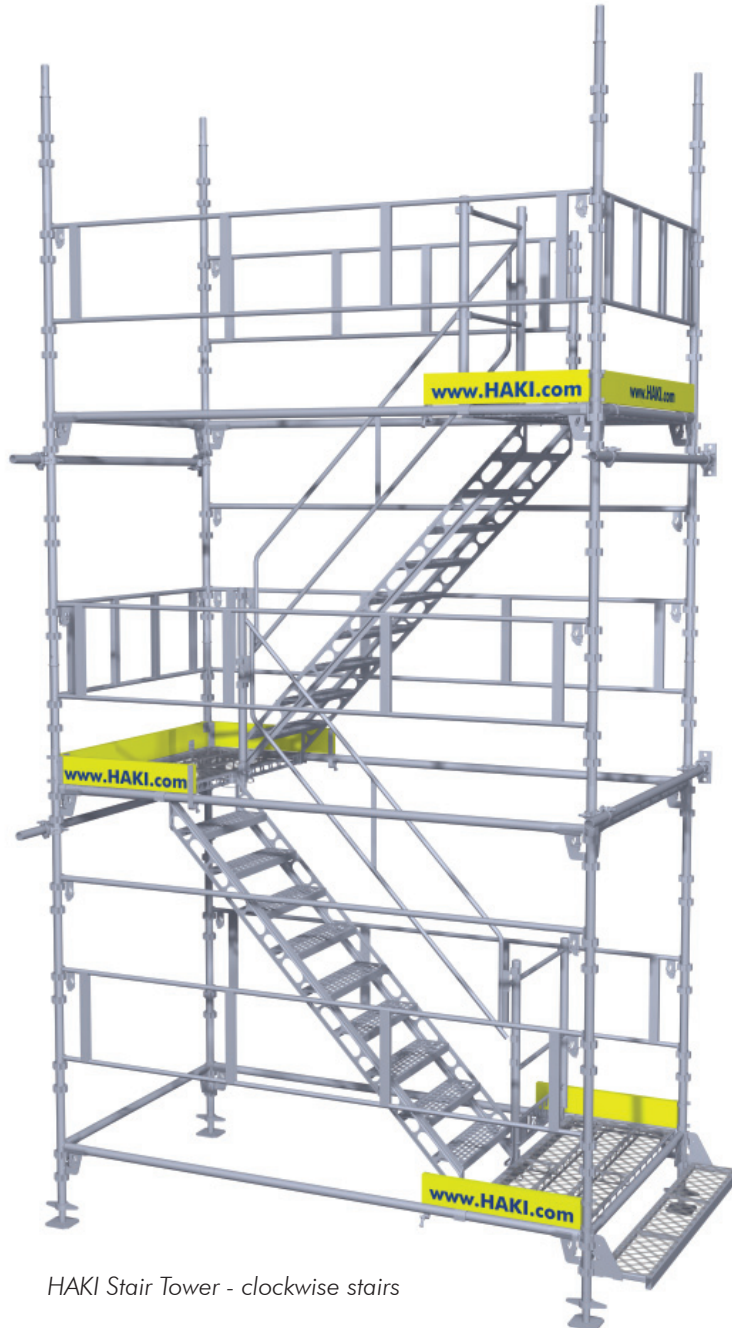


HAKI Stair Tower

3050x1655 Symmetric



HAKI Stair Tower - clockwise stairs



HAKI Stair Tower - anticlockwise stairs



HAKI Stair Tower - parallel, double stair flights

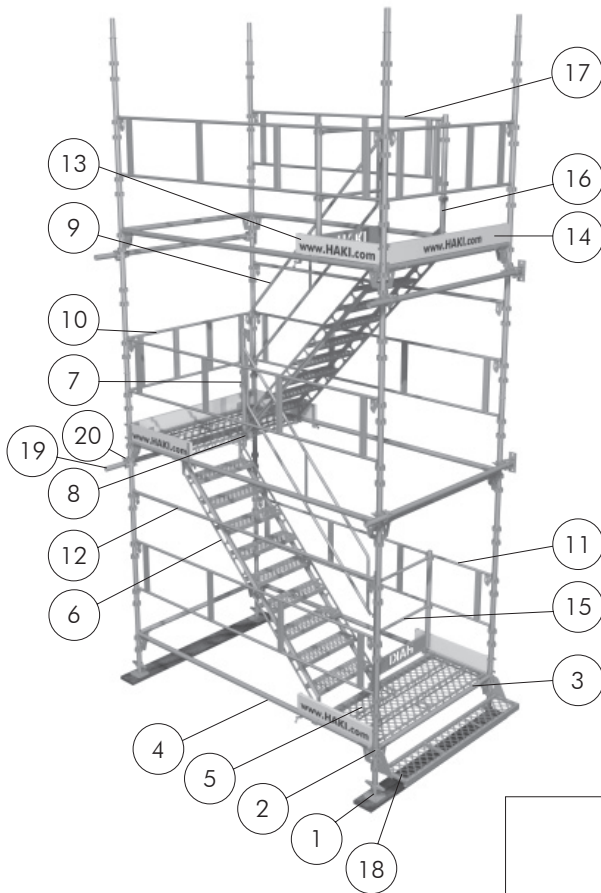


HAKI Stair Tower - base with 1.5 m stair flight

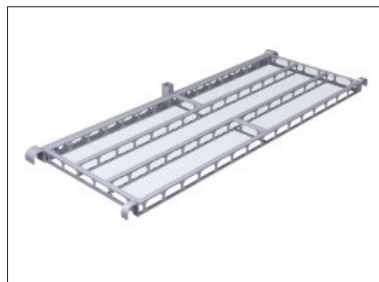
HAKI Stair Tower Symmetric is a further development of the traditional HAKI Stair Tower. In addition to all the benefits offered by the original, we can add

- Significantly lower weight than earlier designs – on account of high tensile steel
- Can be installed with clockwise or anticlockwise stairs as well as with parallel, double stair flights – improved flexibility
- Stair flights and infill platforms can be locked to each other – makes lifting sections easier
- In addition to ledger beams LB, single tube beams ERB can also be used – greater free height
- Adapted for the new FSSH standard – gives, among others, flat floors in all directions
- Fully hot-dip galvanized finish – reduces maintenance

Components



No.	Item No.	Name	Weight
1	2071000	Base jack BS	5.0
2	7017305	Standard FSSH 3000	16.7
3	7022161	Single tube beam ERB 1605	6.3
4	7022301	Single tube beam ERB 3000	10.8
5	7095001	Landing VLPS	19.2
6	7101201	Stair flight TRPS 2000	33.9
7	7015102	Handrail post LSS 1000	4.2
8	8793000	Locking hook LK 10x48	0.1
9	7058201	Stair handrail HL 2000	9.0
10	7052161	Guardrail frame SKRD 1605	7.8
11	7052301	Guardrail frame SKRD 3000	11.4
12	7056301	Guardrail SKR 3000	7.1
13	2025085	Toeboard landing 873	3.2
14	2025159	Toeboard landing 1655	5.3
15	7053002	Safety gate SGTS	10.9
16	7015005	Guardrail post SSKS 1000	6.1
17	7052231	Guardrail frame SKRD 2307	9.0
18	7103160	Entrance step ITR 1605	14.7
19	7111200	Wall tie VST 2000	9.1
20	2041003	Right angle coupler KF 48x48	1.0



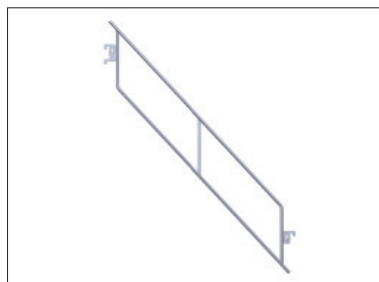
7095001 Landing VLPS (19.2 kg)



7101151 Stair flight TRPS 1500 (28.6 kg)
7101201 Stair flight TRPS 2000 (33.9 kg)



7015102 Handrail post LSS 1000 (4.2 kg)
8793000 Locking hook LK 10x48 (0.1 kg)



7058151 Stair handrail HL 1500 (8.0 kg)
7058201 Stair handrail HL 2000 (9.0 kg)



7053002 Safety gate SGTS (10.9 kg)



2025085 Toeboard landing 873 (3.2 kg)



2025159 Toeboard landing 1655 (5.3 kg)



7015005 Guardrail post SSKS 1000 (6.1 kg)

Material specification

HAKI Stair Tower Symmetric with 2.0 m stair flight

Item No.	Name	Height to uppermost landing platform [m]											
		4,5	6,5	8,5	10,5	12,5	14,5	16,5	18,5	20,5	22,5	24,5	26,5
2071000	Base jack BS	4	4	4	4	4	4	4	4	4	4	4	4
7017105	Standard FSSH 1000	4	0	0	4	0	0	4	0	0	4	0	0
7017155	Standard FSSH 1500	4	4	4	4	4	4	4	4	4	4	4	4
7017205	Standard FSSH 2000	0	0	4	0	0	4	0	0	4	0	0	4
7017305	Standard FSSH 3000	4	8	8	12	16	16	20	24	24	28	32	32
7022161	Single tube beam ERB 1605	6	8	10	12	14	16	18	20	22	24	26	28
7022301	Single tube beam ERB 3000	6	8	10	12	14	16	18	20	22	24	26	28
7095001	Landing VLPS	3	4	5	6	7	8	9	10	11	12	13	14
7101201	Stair flight TRPS 2000	2	3	4	5	6	7	8	9	10	11	12	13
7015102	Handrail post LSS 1000	1	2	3	4	5	6	7	8	9	10	11	12
8793000	Locking hook LK 10x48	3	4	5	6	7	8	9	10	11	12	13	14
7058201	Stair handrail HL 2000	2	3	4	5	6	7	8	9	10	11	12	13
7052161	Guardrail frame SKRD 1605	2	3	4	5	6	7	8	9	10	11	12	13
7052301	Guardrail frame SKRD 3000	6	8	10	12	14	16	18	20	22	24	26	28
7056301	Guardrail SKR 3000	2	3	4	5	6	7	8	9	10	11	12	13
2025085	Toeboard landing 873	6	8	10	12	14	16	18	20	22	24	26	28
2025159	Toeboard landing 1655	2	3	4	5	6	7	8	9	10	11	12	13
7053002	Safety gate SGTS	2	2	2	2	2	2	2	2	2	2	2	2
7015005	Guardrail post SSKS	1	1	1	1	1	1	1	1	1	1	1	1
7052231	Guardrail frame SKRD 2307	1	1	1	1	1	1	1	1	1	1	1	1
7103160	Entrance step ITR 1605	1	1	1	1	1	1	1	1	1	1	1	1
7111200	Wall tie VST 2000	4	6	8	10	12	14	16	18	20	22	24	26
2041003	Right angle coupler KF 48x48	8	12	16	20	24	28	32	36	40	44	48	52
Total weight [kg]		619	834	1 051	1 269	1 484	1 701	1 919	2 134	2 351	2 570	2 785	3 002

Note

- Specification for a separate stair tower with entrance and exit only from lowest and highest landings
- A SKRD 3000 is replaced by a SKRD 2307 and a SSKS 1000 for each extra exit in the tower, the weight also increases by 3.7 kg
- You can not mix the symmetric stair tower's components with traditional components

Permissible construction

The stair tower is calculated according to SS-EN 12810 - 12811.

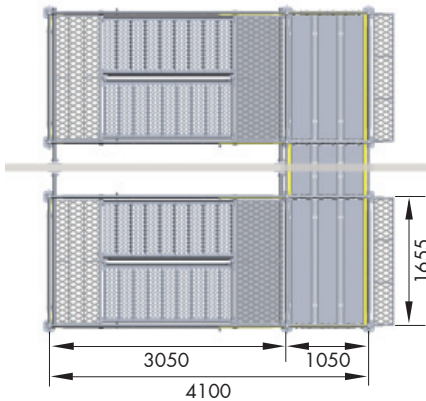
Maximum permitted building height with 2 m lift height and with wall anchoring every other metre, both inner and outer standards are anchored, is 94 m with a max. wind load of 770 N/m². This applies under the condition that a distributed load of 1 kN/m² is evenly spread over all infill platforms and stairs above a height of 10 m at the top of the stair tower (EN 12811-1). This corresponds to a load of 12 persons at 100 kg on the top 10 metres. For other loads please contact HAKI's technical department.

Wall anchors are to be designed for a load of 4.0 kN.

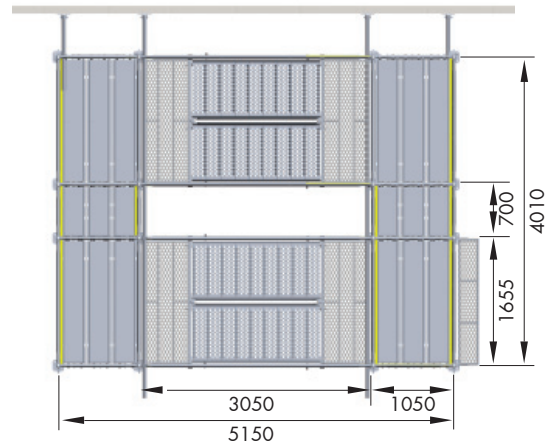
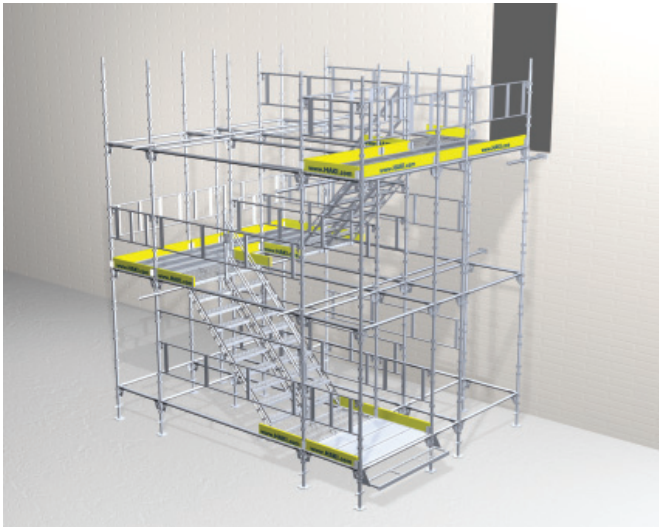
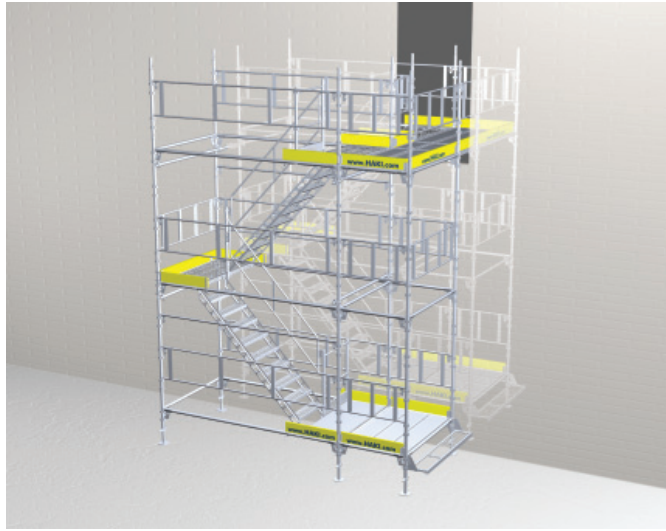
Wind load 770 N/m² is, according to SS-EN 12810-1, the general wind load at a height of 24 m, consequently stair towers higher than 24 m should be checked in relation to the local wind load conditions (BSV 97).

Wind area [k _v]	3.05 side [m ² /m]	1.65 side [m ² /m]
Upper level	0.47	0.59
Underlying levels	0.63	0.99

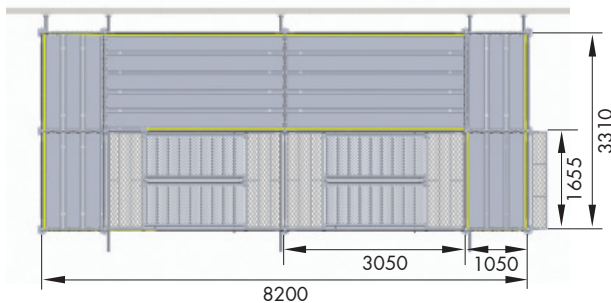
Applications



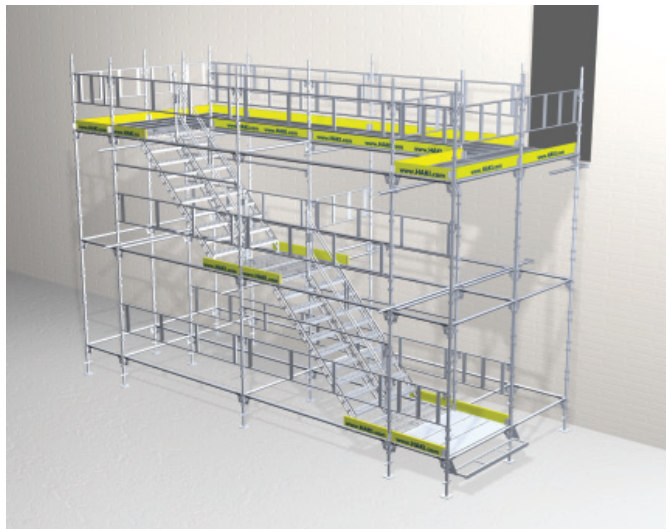
HAKI Stair Tower connected to a stair tower on the inside of the building



HAKI Stair Tower with double stair flights and extended landings



HAKI Stair Tower with double stair flights over two bays, extended landings and access via scaffold



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